

antiseptic action without interference from a shelving nail. Before application of the ultraviolet the entire foot, sole, and dorsal surfaces in turn are cleansed with ether swabs, and each of the toes is spread apart by the patient, that the spaces between may be swabbed with ether. Then with the particular water-cooled machine, whose action is known to the operator, one-minute radiation at four to six inches distance is applied to the dorsum, the sole surfaces, and the spaces between the toes. There is some overlapping here of radiation, but so far as our experience is observed it is beneficial rather than detrimental. A new or clean white cotton sock is put on and is *not* removed until treatment on the following day. This has its merits in that the feet of the patient do not spread the infection; bed clothing is not contaminated, and the fungus does not grow so rapidly or thrive so readily in a cool cotton environment. Women enter a vigorous protest against this procedure unless the regular hose over the cotton stocking cut hose length at the ankle is allowed.

The routine is repeated until all trace of the infection has disappeared.

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Measles Prophylaxis.—While measles in California is not so severe or so often followed by complications and sequelae as in the East, still it does enough damage to warrant avoidance. The younger the child, the more urgent is prevention, because in general, severity varies inversely with age among children.

Since we have at hand, in the blood of persons who have had the disease, a simple and effective prophylactic against measles, it seems that preventive efforts should be more generally made.

Omitting references, it may be stated that practically every adult who has had measles as a child carries a permanent supply of antibodies sufficient to protect himself actively and completely against subsequent attacks, and sufficient to protect others passively to some extent. This extent varies with the antibody-producing-and-maintaining power of the individual, and is relative to the blood volume used.

The sooner after exposure the serum is transferred to the patient and the more that is given the greater the chances of protection.

Practically, to avoid difficulties, serum is not separated, but whole citrated blood is used, and is given in one or both buttocks, as soon after exposure as possible. Dosage is from 20 to 35 cubic centimeters, according to the size of the child.

These amounts, if given within four days of exposure, will usually protect completely. Such protection lasts from three weeks to three months—usually sufficient to postpone susceptibility at least one season. If given after the fourth day, protective power diminishes rapidly, but if used from four to seven days before the rash comes out, protection is usually sufficient

to modify the disease to a very light case, with perhaps only twenty-four to forty-eight hours of moderate fever, and an evanescent rash. Under such conditions, as a result of the mitigated measles, a permanent active immunity is developed. Consequently, it is always hoped that circumstances will be such that this result can be achieved.

Blood from relatives who have had measles any time in the past is used and does not need to be typed. It must be from a syphilis-free person of course. In case there is no Wassermann information on the parents' blood, the mother can usually be considered safe on her own denial, if the situation is explained to her.

The amount of blood to be taken is divided by ten, and this quantity of sterile two per cent citrate solution is drawn into the syringe. The blood is then drawn, mixing itself with the solution as it comes. With the same syringe and needle, injection is made deep in the gluteal region. There is a feeling of fullness, but very little pain. The child gets up and walks, and in a few hours all is absorbed. Reaction practically never follows—no possible harm is done, and the chance for good is great.

The public is learning about this, and is already asking for it.

If enough serum could be obtained, and given intravenously (typing required) the disease once contracted could be benefited. This, however, is seldom necessary, and the complication of the procedure makes it much less practicable than the whole blood prophylaxis after known exposure.

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An Early Symptom of Tuberculous Infection.—It is important to recognize any sign of early tuberculosis, as it is upon the early recognition of the disease that the prophylaxis is based, as well as the prospects for arrest of the infection. It is especially essential in childhood to diagnose the disease as soon as possible so that the child's contact, if not already known, may be searched for, and removed from the environment. An early sign, often not considered by physicians as related to tuberculosis, is the appearance of erythema nodosum. The clinical evidence, in cases of young children, is rather overwhelmingly in favor of this being related to an early tuberculous infection. The condition in young children almost always occurs only in the presence of a positive tuberculin test, and in many proved cases toward the end of the incubation period of tuberculosis, and during the initial fever of this infection. The younger the individual the more certain is the association. In the Scandinavian countries, where erythema nodosum is seen very frequently in children, it is considered as pathognomonic of a recent infection with the tubercle bacillus. The possibility of the association should be borne in mind whenever one sees erythema nodosum, and in infants and young children should be considered as evidence of tuberculosis, until definitely proved otherwise.

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